



ARLEEN NG — Staff

Will Bolton is the aerospace engineer of a new kind of aircraft built to fly into violent thunderstorms.

Sandia-designed airplane sets remote-control altitude record

By Nancy Mayer
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LIVERMORE — A slender, long-winged airplane designed to fly above violent thunderstorms has set an altitude record for aircraft of its kind, said researchers at Sandia National Laboratories.

The Altus 2, a remote-controlled model adapted from a military surveillance plane, soared to 43,500 feet during demonstrations this summer at Edwards Air Force Base, researchers said.

The record applies to unmanned aircraft for global climate research.

"It's exciting because it's a step toward the high-altitude capability that we ultimately want to have," said aerospace engineer Will Bolton.

The goal is 65,000 feet, nearly twice the altitude of commercial airliners and about equivalent to the altitudes of some spy planes.

Altitude is important because researchers want to gather data above the clouds, which end at 45,000 feet in the United States but extend to 60,000 feet above the tropics, a crucial region for weather researchers.

After Labor Day, the Altus will be tested above Oklahoma's "tornado alley," a researcher's dream because of its gnarly storms and thick blanket of scientific instruments for correlating test data.

The Altus' summer flights at Edwards were

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its first trips with simulated cargo weighing more than 300 pounds. Eventually, the aircraft will carry scientific instruments for studying the interplay of clouds with the solar winds that drive Earth's weather patterns.

Last summer, the aircraft set endurance records by staying aloft more than 26 hours, a boon for researchers who need uninterrupted data for effective study of the Earth's day-night cycle.

Because the aircraft is unmanned, scientists are free from worries about a pilot's health and welfare. That opens the door to risky research near hurricanes and in remote areas like the North and South poles, Bolton said.

Built by General Atomics Aeronautical Systems, Inc., the Altus is a variation on the Predator, a reconnaissance plane flown over Bosnia.